

In the Claims:

The following listing of claims will replace all prior versions and listings of the claims in the application:

Listing of the Claims:

1. (Currently Amended) A method for diagnosing an ocular disease involving neovascularization, comprising:

(a) placing an ocular tissue in the path of a first light beam, wherein the ocular tissue comprises retina or RPE/choroidal tissue;

(b) measuring the maximum intensity of a second light beam that is scattered from the ocular tissue;

(c) measuring a polarization shift of the second light beam; and

(d) diagnosing an ocular disease involving neovascularization if the measured polarization shift corresponds to a polarization shift of polarized light scattered off of a neovascularized tissue.

2. (Original) The method of claim 1, wherein the method is noninvasive.

3. (Currently Amended) The method of claim 1, wherein the ocular tissue ~~includes~~comprises retinal tissue.

4. (Currently Amended) The method of claim 1, wherein the ocular tissue ~~includes~~comprises RPE/choroidal tissue.

5. (Original) The method of claim 1, wherein the light beam includes light from a laser.

6. (Original) The method of claim 1, wherein the ocular disease includes diabetic retinopathy.

7. (Original) The method of claim 1, wherein the ocular disease includes macular degeneration.

8. (Original) The method of claim 1, wherein the ocular disease includes cancer.

9. (Currently Amended) A method for diagnosing an ocular disease involving neovascularization, comprising:

_____ (a) placing an ocular tissue in the path of a first light beam, wherein the ocular tissue comprises retina or RPE/choroidal tissue;

_____ (b) measuring ~~[[an]]~~ the maximum intensity of ~~[[the]]~~ a second light beam that is scattered from the ocular tissue; and

_____ (c) diagnosing an ocular disease involving neovascularization if the measured intensity corresponds to the intensity of a neovascularized tissue.

10. (Original) The method of claim 9, wherein the method is noninvasive.

11. (Currently Amended) The method of claim 9, wherein the ocular tissue ~~includes~~ comprises retinal tissue.

12. (Currently Amended) The method of claim 9, wherein the ocular tissue ~~includes~~ comprises RPE/choroidal tissue.

13. (Original) The method of claim 9, wherein the light beam includes light from a laser.

14. (Original) The method of claim 9, wherein the ocular disease includes diabetic retinopathy.

15. (Original) The method of claim 9, wherein the ocular disease includes macular degeneration.

16. (Original) The method of claim 9, wherein the ocular disease includes cancer.

17. (Currently Amended) A method for diagnosing an ocular disease involving neovascularization, comprising:

_____ (a) placing an ocular tissue in the path of a first light beam, wherein the ocular tissue comprises retina or RPE/choroidal tissue;

_____ (b) aligning an analyzer with the direction of a second light beam that is the most intense light beam scattered from the ocular tissue;

_____ (c) measuring a polarization shift of the second light beam;

_____ (d) measuring an intensity of the second light beam; and

_____ (e) diagnosing an ocular disease involving neovascularization if the measured polarization shift and intensity correspond to a polarization shift and intensity of a neovascularized tissue.

18. (Original) The method of claim 17, wherein the method is noninvasive.

19. (Currently Amended) An apparatus for diagnosing an ocular disease, comprising:

_____ (a) a laser; a polarizer coupled to the laser;

_____ (b) a tissue sample holder coupled to the polarizer;

_____ (c) an analyzer coupled to the tissue sample holder, wherein the analyzer is configured to be aligned with the direction of the most intense beam scattered from the tissue;

_____ (d) a detector coupled to the analyzer; and

_____ (e) a data acquisition system coupled to the detector, the data acquisition system configured to measure a polarization shift of a light beam scattered off of a tissue sample in the holder and diagnose an ocular disease if the measured polarization shift corresponds to a polarization shift of a neovascularized tissue, wherein the data acquisition system includes a computer and the detector.

20. (Original) The apparatus of claim 19, wherein the detector includes a photodiode.

21. (Original) The apparatus of claim 19, wherein the data acquisition system includes a digital meter.

22. (Canceled)

23. (Currently Amended) A method for detecting neovascularized tissue, comprising: placing a tissue in the path of a light beam; measuring a polarization shift of the most intense light beam scattered from the tissue; and detecting neovascularized tissue if the measured polarization shift corresponds to a polarization shift of a neovascularized tissue.
24. (Original) The method of claim 23, wherein the method is noninvasive.
25. (Original) The method of claim 23, wherein the tissue comprises ocular tissue.
26. (Original) The method of claim 25, wherein the ocular tissue comprises retinal tissue.
27. (Original) The method of claim 25, wherein the ocular tissue comprises RPE/choroidal tissue.
28. (Original) The method of claim 23, wherein the light beam comprises light from a laser.
29. (Currently Amended) A method for detecting neovascularized tissue, comprising: placing a tissue in the path of a light beam; measuring an intensity of the most intense light beam scattered from the tissue; and detecting neovascularized tissue if the measured intensity corresponds to the intensity of a neovascularized tissue.
30. (Original) The method of claim 29, wherein the method is noninvasive.
31. (Original) The method of claim 29, wherein the tissue comprises ocular tissue.
32. (Original) The method of claim 31, wherein the ocular tissue comprises retinal tissue.
33. (Original) The method of claim 31, wherein the ocular tissue comprises RPE/choroidal tissue.
34. (Original) The method of claim 29; wherein the light beam comprises light from a laser.
35. (Currently Amended) An apparatus for diagnosing an ocular disease, comprising:
- _____ (a) a laser;
- _____ (b) a polarizer coupled to the laser;
- _____ (c) a tissue sample holder coupled to the polarizer;

_____ (d) an analyzer coupled to the tissue sample holder;

_____ (e) a detector coupled to the analyzer, wherein the detector comprises a photodiode; and

_____ (f) a data acquisition system coupled to the detector, the data acquisition system configured to measure an intensity of a light beam emitted by the laser and diagnose an ocular disease if the measured intensity corresponds to an intensity of a neovascularized tissue, wherein the data acquisition system comprises a computer.

36. (Canceled)

37. (Original) The apparatus of claim 35, wherein the data acquisition system comprises a digital meter.

38. (Canceled)

39. (Currently Amended) An apparatus for detecting neovascularized ocular tissue, comprising:

_____ (a) a laser;

_____ (b) a polarizer coupled to the laser;

_____ (c) a tissue sample holder coupled to the polarizer;

_____ (d) an analyzer coupled to the tissue sample holder;

_____ (e) a detector coupled to the analyzer, wherein the detector comprises a photodiode; and

_____ (f) a data acquisition system coupled to the detector, the data acquisition system configured to measure a polarization shift of a light beam emitted by the laser and diagnose an ocular disease if the measured polarization shift corresponds to a polarization shift of a neovascularized ocular tissue.

40-41. (Canceled)

42. (Currently Amended) An apparatus for detecting neovascularized ocular tissue, comprising:

- _____ (a) a laser;
- _____ (b) a polarizer coupled to the laser;
- _____ (c) a tissue sample holder coupled to the polarizer;
- _____ (d) an analyzer coupled to the tissue sample holder;
- _____ (e) a detector coupled to the analyzer, wherein the detector comprises a photodiode; and
- _____ (f) a data acquisition system coupled to the detector, the data acquisition system configured to measure an intensity of a light beam emitted by the laser and diagnose an ocular disease if the measured intensity corresponds to an intensity of a neovascularized ocular tissue.

43-44. (Canceled)